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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/402,751	10/12/1999	HENNING HENNINGSSEN	4359-5-PCT	6390

7590 01/30/2002

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EXAMINER

ZAMANI, ALI A

ART UNIT PAPER NUMBER

2674

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/402,751

Applicant(s)
Henning Henningsen

Examiner
Ali Zamani

Art Unit
2674



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Dec 8, 1999

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-22 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-5, 7, and 12-22 is/are rejected.

7) ☒ Claim(s) 6 and 8-11 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

Art Unit: 2674

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 6, 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fshimi et al. (US Pat. No. 5,583,669) in view of Ditzik (US Pat. No. 5,771,039).
3. In regard to claims 1-5, 6, 12-22, Fushimi et al. disclose an illumination unit for point illumination of a medium comprising a plurality of light emitters (84 and 85) in the form of light guides arranged to illuminate an illumination face via a light valve arrangement (73), light valve (73) arrangement comprising a plurality controlled light valves, characterized in that at least two of the light emitters (84 and 85) are arranged to illuminate a plurality of light valves (see the abstract). Fushimi et al. also disclose a lens array plate (61) has a plurality of microlens elements (64) formed in a matrix pattern, a light source (131) which includes a lamp (132), a concave mirror (133). Light emitted from the light source (131) passes through the field lens (135) so as to be incident on the light valve apparatus (136) (see Fig. 10, col. 11, lines 43-64). Fushimi et al. teach a light valve apparatus which includes a light valve in which a plurality of pixels are arranged in a matrix pattern, a first lens array means in which a plurality of microlens elements

Art Unit: 2674

are arranged in a matrix pattern similar to the pixel arrangement of the light valve, and which is disposed at an incident sight of said light valve, and a second lens array means in which a plurality of microlens elements are arranged in a matrix pattern similar to the pixel arrangement of said light valve, and which is disposed between said light valve and said first lens array means (see col. 3, lines 63-67 and col. 4, lines 1-25). Fushimi et al. also teach a projection display system which includes a light source, a light valve apparatus upon which light emitted from said light source is incident and in which optical images are formed according to video signal and projects lens for projecting said optical images onto a screen, with any one of the light valve apparatus being employed as a light valve means (col. 4, lines 50-57). Fushimi et al. further teach that the TFT liquid crystal panel using TN liquid crystal has been described as used for the light valve, liquid crystal panels of other system or panels using -electro-optical crystals, etc. may also be used so far as they can form optical images as variation of optical characteristics (col. 22, lines 7-21). Fushimi et al. Substantially teach the above claimed limitations except for teaching an "optical fibers". However, Ditzik discloses a display device integration techniques (see the abstract) which use ray light sources (see Figs 8-12, col. 2, lines 60-65). Ditzik substantially teach the concept of using an optical fiber (8) is old. Thus, it would have been obvious to one of ordinary skill in the art to utilize optical fiber (8) of Ditzik in the display system of Fushimi et al. to provide a light valve apparatus, and a display system employing said light valve apparatus which are simple in construction and stable in functioning at high reliability, and can be readily manufacturing at low cost.

Art Unit: 2674

4. Claims 6, 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Parker et al. and Sharp et al. are made of record to show various type of illumination units.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Zamani whose telephone number is (703) 308-6414. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerepe, can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

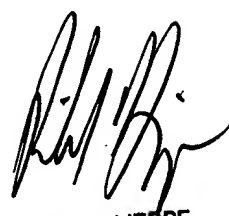
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2674

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ali Zamani

January 25, 2001



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600